



The WAVEXpress TurboMAX BS Plus integrates the base station controller (BSC) and high-power base station (BTS) into a single chassis It is a high-power, low-cost, compact solution to provide Wireless Local Loop (WLL), microcell expansion, and specialty GSM deployment. The TurboMAX BS Plus combines all of the functionality of the BSC and the high-power BTS making it the perfect solution to provide capacity to a growing market or low cost expansion solution in a new deployment.

# **Network Features**

**Features** Capacity/Standard Number of TRXs per BS Plus Up to three internal (located inside the BS Plus chassis) Up to eight total (two internal and six external TRXs) Number of BTSs per BS Plus Up to four BTS nodes (one internal) Traffic Capacity 37 Erlangs @ 2% Grade of Service **BTS Link** Abis Interface BSC to MSC Link GSM A-Interface Frequency Band Supported GSM 900/1800, 1900 MHz PCS network **Output Power** RF Receiver Sensitivity -109 dBm (w/o diversity) Receive diversity supported -111 dBm (with diversity) Sectorization Supported

Hardware ready

# **System Specifications**

**GPRS** 

| Configurations         |                           |
|------------------------|---------------------------|
|                        |                           |
| Maximum Number of BTSs | One internal; four total  |
| Number of Trunk Ports  | Up to six                 |
| Traffic Capacity       | 37 Erlangs @ 2% GOS¹      |
| Transmission           | Star or Daisy Chain       |
| Interfaces             |                           |
| MSC                    | GSM Compliant A Interface |
|                        |                           |

MSC
BTS
GSM Compliant A Interface

GSM Compliant Abis Interface

GSM Compliant Air Interface; supports Phase 1, 2 or 2+ GSM and PCS Compliant Mobile Stations

Transmission
Dual Port G.703 compliant E1 75/120 Ohm Dual Port T1.403 compliant T1 100 Ohm

Ethernet
IEEE802.3; 10baseT

Social

DB9 male connector supporting

Serial DB9 male connector supporting DCE Interface

# **WAVEXpress TurboMAX BS Plus**

Radio

GSM RF Interfaces

Power Control

Rx Sensitivity

GSM 900/1800 and PCS 1900

Static: 12dB in 2dB steps

-109 dBm (w/o diversity)

-111 dBm (with diversity)

**GSM Vocoding** 

Integrated TRAU Supporting EFR or standard vocoding

Transcoding Capacity Up to 64 Traffic Channels

**Electrical** 

Power Options 110/220 VAC, 50-60 Hz

-48 VDC

Power Consumption 7.9 Amperes @ 115 VAC<sup>2</sup>

4.0 Amperes @ 230 VAC<sup>2</sup> 17.8 Amperes @ -48 VDC<sup>2</sup> 61 x 28 x 55 centimeters

Mechanical Dimensions (HxWxD) 61 x 28 x 55 centimeters

(24 x 11 x 22 inches)

Weight 40 kg (88 lbs)

**Environmental** 

Operating Environment Temperature: -5 to 45°C

Humidity: 10% to 90% (non-condensing)

Regulatory ETS 300 609-1 (GSM11.21), ETS 300 342-2; CB

Report; PCS 1900: FCC Part 15 and Part 24, and Industry Canada ICES-003 & RSS-133, and SRSP-510; NTRL/C

Notes: 1. Grade of Service

2. Standard Configuration of three E1/T1 and two TRX cards

Specifications subject to change without notice
This product is designed for professional installation only
See www.iwv.com for the latest version of this data sheet

Effective Date: October 2002

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